

REMARKS

Claims 1-15 are all the claims pending in the application. Reconsideration and allowance of all the claims are respectfully requested in view of the following remarks.

Information Disclosure Statement (IDS)

The Examiner has returned initialed copies of the PTO form-1449 submitted with each IDS as submitted June 17, 2002, and September 28, 2001. However, in the June 17 IDS, the Examiner has not initialed by the Patent Abstracts of Japan, vol. 1997, no. 06, 07/02/97 as listed in the section entitled "OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS". Accordingly, Applicants respectfully request that the Examiner properly initial the PTO form-1449 submitted with the June 17 IDS, by initialing next to the cited Patent Abstract of Japan, and return a copy thereof with the next Office Action.

Drawings

1) The Examiner objected to the drawings as not showing every feature of the invention specified in the claims. Specifically, the Examiner asserted that the first portion, second portion, and take-out end side, as set forth in claim 13, must be shown in the drawings, or the features must be canceled from the claim. Applicants respectfully traverse this objection because the drawings do show the features as set forth in claim 13.

For example, as shown in Fig. 3, a metal bush 43 comprises a first portion 43b fixed to the output terminal, and a second portion 43a, c surrounding the output terminal bolt 26. Further, a fastening nut 44 is screwed onto a screw part 26b on the output terminal bolt 26 so that the vehicle side connecting terminal 42 is held between the second portion 43a, c and the fastening nut 44. Moreover, note the paragraph bridging pages 18 and 19 of the present specification, wherein it is described that the take-out side of the output terminal bolt 26 is the lower side as shown in Fig. 3. See also, page 17, line 1 - page 19, line 10.

As can be seen from the above, the elements as set forth in claim 13 are, indeed, shown in the drawings and are described in the specification. Accordingly, this objection is believed to be in error, and should be withdrawn.

Claim Rejections - 35 U.S.C. § 112

2) The Examiner rejected claim 13 under §112, 1st paragraph, as containing subject matter not described in the specification. Applicants respectfully traverse this rejection because the specification does adequately describe the subject matter as set forth in claim 13. After all, there is no *in haec verba*—i.e., word for word—requirement for satisfying the written description requirement. That is, the newly added claim limitations can be supported in the specification through express, implicit, or inherent disclosure.¹ Additionally, applicant can show possession of the claimed invention by describing the claimed invention with all of its limitations using such descriptive means as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention.²

Claim Rejections - 35 U.S.C. § 103

3) The Examiner rejected claims 1, 7, and 13, under § 103(a) as being unpatentable over US Patent 4,683,390 to Imori et al. (hereinafter Imori) in view of French Patent Application 2,629,287 to Bourgade et al. (hereinafter Bourgade). Applicants respectfully traverse this rejection because the references fail to establish *prima facie* obviousness in that they do not teach or suggest all the elements as set forth and arranged in Applicants' claims.

Claim 1 sets forth a vehicle AC generator comprising: a bracket having an opening; a cylindrical insulating bush mounted in the opening; an output terminal bolt inserted through the insulating bush; a fastening nut capable of being screwed onto the output terminal bolt; and a

¹ See MPEP § 2163(I)(B).

² *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997).
See also MPEP § 2163 (I).

bush provided between the insulating bush and the vehicle side connecting terminal, wherein the fastening nut is screwed onto a screw part on a take-out end part side of the output terminal bolt so that the vehicle side connecting terminal is held between the bush and the fastening nut.

For example, as shown in Fig. 3, one embodiment of the present invention comprises: a bracket 2 having an opening; a cylindrical insulating bush 41 mounted in the opening; an output terminal bolt 26 inserted through the insulating bush 41; a fastening nut 44 capable of being screwed onto the output terminal bolt 26; and a bush 43 provided between the insulating bush 41 and the vehicle side connecting terminal 42, wherein the fastening nut 44 is screwed onto a screw part 26b on a take-out end part side of the output terminal bolt 26 so that the vehicle side connecting terminal 42 is held between the bush 43 and the fastening nut 44.

In contrast to that set forth in claim 1, Imori teaches a nut 9 that holds an output terminal member 11 to an output terminal bolt 3. But it is the output terminal member 11 to which the vehicle-body side wiring harness is attached by seat 11b and threaded projection 11c.³ The Examiner cites Imori's heat sink 2 and insulating bush 8 as being the bush and insulating bush of the presently claimed invention. However, with such a construction, the vehicle side connecting terminal—attached at threaded projection 11c—is not held between the heat sink 2 (cited by the Examiner as a bush) and a fastening nut (which would be screwed onto threaded projection 11c). Instead, the vehicle side connecting terminal would be held between the fastening nut and the seat 11b.

The Examiner asserts that Bourgade discloses a vehicle-connecting terminal 36 that is held between a fastening nut 29 and a bush 72. In such an arrangement, the output terminal bolt 20 projects axially, i.e., in the direction parallel to the rotary shaft of the generator, and the connecting terminal 36 is connected with the output terminal 20 in the axial direction. However, such an arrangement is one that Imori wishes to avoid.

³ Imori at col. 3, lines 8-16.

Imori teaches that there are problems in using an output terminal that projects axially, i.e., in the direction parallel to the rotary shaft of the generator. Specifically, Imori teaches that with such an arrangement of the output shaft 7, the connection of the vehicle-body side wiring harness is difficult to connect when the engine room of the vehicle is limited in space.⁴ Accordingly, Imori operates on the principle that an output terminal assembly has an outer end portion extending perpendicular to the axial direction of the generator so that the output terminal assembly can be connected with the external member at a location outside the generator housing and, thus, the generator can be mounted on the engine without any difficulty and free from any restriction on the axial space.⁵ Therefore, as shown in Fig. 2, Imori teaches the use of an output terminal member 11 connected to the output terminal bolt 3 by a nut 9. With such an arrangement, the vehicle-body side wiring harness can be connected at portions 11c, b. See Imori at col. 2, line 65 - col. 3, line 16.

Accordingly, one of ordinary skill in the art, looking at the teachings of the references as a whole, would not have been motivated to connect a vehicle-side connecting terminal 36 in an axial direction to Imori's output terminal 3. Instead, he would have been motivated to connect a vehicle-side connecting terminal 36 to Imori's output member 11 as at threaded portion 11c. In such a case, the Examiner's proposed combination of references then would not teach or suggest an arrangement wherein a fastening nut is screwed onto a screw part on a take-out end part side of an output terminal bolt so that a vehicle side connecting terminal is held between a bush and the fastening nut, as set forth in claim 1.

For at least the above reasons, claim 1 is not rendered obvious by Imori in view of Bourgade. Likewise, dependent claims 7 and 13 are not rendered obvious by these references.

4-6) The Examiner rejected claims 2, 8, and 11, under §103(a) as being unpatentable over Imori in view of Bourgade and further in view of Japanese Patent Application 03-150040A

⁴ Imori at col. 1, lines 30-46.

⁵ Imori at col. 1, lines 49-61.

to Kusumoto (hereinafter Kusumoto). Also, the Examiner rejected claim 5 under §103(a) as being unpatentable over Imori in view of Bourgade, and further in view of Kusumoto, US Patent 4,492,885 to Kitamura et al. (hereinafter Kitamura), US Patent 4,843,267 to Kaneyuki (hereinafter Kaneyuki), and US Patent 6,121,699 to Kashihara et al. (hereinafter Kashihara). Further, the Examiner rejected claims 4 and 10 under § 103(a) as being unpatentable over Imori in view of Bourgade, and further in view of Kitamura, Kaneyuki, Kashihara, and US Patent 4,232,238 to Saito et al. (hereinafter Saito). Applicants respectfully traverse these rejections.

Because all of these rejections are based on Imori and Bourgade, Applicants' arguments as set forth above with respect to the rejection of claims 1, 3, and 7 are pertinent here and, therefore, are incorporated by reference. That is, Imori and Bourgade are deficient in that they do not teach or suggest all of the elements as set forth in Applicants' claims. Further, none of the additionally cited references cure the above-noted deficiency in the Examiner's attempted combination of Imori and Bourgade. Accordingly, none of these combinations of references renders obvious Applicants' claims 2, 8, and 11.

7) The Examiner rejected claims 3, 9, and 12, under §103(a) as being unpatentable over Imori in view of Saito, and further in view of Kusumoto. Applicants respectfully traverse this rejection because the references fail to establish *prima facie* obviousness in that they do not teach or suggest every element as set forth and arranged in Applicants' claims.

Claim 3 sets forth a vehicle AC generator comprising: a bracket having an opening; a cylindrical projecting part having a second opening; a first insulating bush mounted on the first opening; a second insulating bush mounted on the second opening; an output terminal bolt inserted through the first and second insulating bushes; a fastening nut capable of being screwed onto the output terminal bolt; and a bush, the bush having a bushing part loosely fitted onto the output terminal bolt and a fixed part fixed to the output terminal bolt between the first insulating bush and the second insulating bush, wherein the fastening nut is screwed onto a screw part on a take-out end part side of the output terminal bolt so that the vehicle side connecting terminal is held between the bushing and the fastening nut.

For example, as shown in Fig. 3, one embodiment of the invention comprises: a bracket 2 having a first opening 2a; a cylindrical projecting part 2c having a second opening 2b; a first insulating bush 27 mounted on the first opening 2a; a second insulating bush 41 mounted on the second opening 2b; an output terminal bolt 26 inserted through the first 27 and second 41 insulating bushes; a fastening nut 44 capable of being screwed onto the output terminal bolt 26; and a bush 43, the bush 43 having a bushing part 43a, c loosely fitted onto the output terminal bolt 26 and a fixed part 43b fixed to the output terminal bolt 26 between the first insulating bush 27 and the second insulating bush 41, wherein the fastening nut 44 is screwed onto a screw part 26b on a take-out end part side of the output terminal bolt 26 so that a vehicle side connecting terminal 42 is held between the bushing 43 and the fastening nut 44.

First, as noted above in connection with the rejection addressed in (3) above, Imori fails to teach or suggest an arrangement wherein a fastening nut is screwed onto a screw part on a take-out end part side of the output terminal bolt so that the vehicle side connecting terminal is held between the bushing and the fastening nut.

Second, in contrast to that set forth in claim 3, Imori fails to teach or suggest a bush comprising a bushing part loosely fitted onto an output terminal bolt and a fixed part fixed to the output terminal bolt between a first insulating bush and a second insulating bush. The Examiner cites Imori's heat sink 2 as being the bush recited in claim 3, and cites annular insulator 8 as being an insulating bushing. However, Imori discloses only one annular insulator 8; he does not teach or suggest a first and a second insulating bushing, as set forth in claim 3, let alone that the heat sink 2 is fixed to the terminal bolt 3 between first and second insulating bushes. Instead, one of Imori's heat sinks 2 is fixed to the terminal bolt 3 at the right-hand side thereof as viewed in Fig. 2.

The Examiner cites Saito as teaching a bracket 11 with first and second openings into which are fitted first 71 and second 72 insulating bushes, as well as a fixed part 11a fixed onto the output terminal bolt 21 between the first and second insulating bushes.⁶

⁶ Office Action at page 11, last paragraph.

First, the Examiner's interpretation of Saito is wrong. That is, part 11a is not a fixed part fixed onto the output terminal bolt 21 but, instead, is a "mounting hole".² And the "hole" is not fixed to the bolt 21, which merely passes through the hole 11a without engaging its periphery. See Fig. 10.

Second, even if hole 11a were fixed to the bolt 21, the hole 11a is part of the bracket 11; it is not a part of a bush having a bushing part loosely fitted onto the output terminal bolt and a fixed part fixed to the output terminal bolt between the first and second insulating bushes. Accordingly, Saito fails to teach or suggest that which Imori lacks—i.e., a bush having a bushing part loosely fitted onto the output terminal bolt and a fixed part fixed to the output terminal bolt between the first and second insulating bushes.

Further, Kusumoto fails to teach or suggest a bush having a bushing part loosely fitted onto the output terminal bolt and a fixed part fixed to the output terminal bolt between the first and second insulating bushes. Therefore, Kusumoto fails to teach or suggest that which Imori lacks.

Accordingly, for the sake of argument, even assuming that one of ordinary skill in the art were motivated to combine Imori with Saito and Kusumoto as suggested by the Examiner, any such combination would still not teach or suggest a bush having a bushing part loosely fitted onto the output terminal bolt and a fixed part fixed to the output terminal bolt between first and second insulating bushes.

For at least any of the above reasons, claims 3, 9, and 12, are not rendered obvious by Imori in view of Saito and Kusumoto.

8) The Examiner rejected claims 6 and 9 under § 103(a) as being unpatentable over Imori in view of Saito and further in view of Kusumoto, Kitamura, Kaneyuki, and Kashiwara. Applicants respectfully traverse this rejection.

² Saito at col. 4, lines 19-22.

Because this rejection is based on Imori and Saito, Applicants' arguments as set forth above with respect to the rejection of claims 3, 9, and 12, are pertinent here and, therefore, are incorporated by reference. That is, Imori and Saito are deficient in that they do not teach or suggest all of the elements as set forth in Applicants' claims. Further, none of Kusumoto, Kitamura, Kaneyuki, and Kashihara, cure the above-noted deficiencies in the Examiner's attempted combination of Imori and Saito. Accordingly, no combination of these references renders obvious Applicants' claims 3, 9, and 12.

Miscellaneous Matters

New claims 14 and 15 have been added to further define the invention. New claims 14 and 15 set forth that the bush, the output terminal bolt, and the fastening nut, are arranged so that when the fastening nut is screwed onto the output terminal bolt to hold the vehicle side connecting terminal, an axial load is generated on the output terminal bolt by the bush and the fastening nut. This arrangement distinguishes over Imori wherein a fastening nut would be screwed onto threads 11c of the terminal member 11 to hold a vehicle side connecting terminal to seat 11b. Imori's arrangement does not result in an axial load being developed in the output terminal bolt 3 by the action of a fastening nut and any of the elements (2, 8) which the Examiner cites as being a bush.

Conclusion

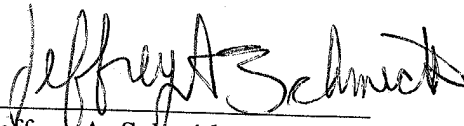
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment Under 37 C.F.R. § 1.111
US Appl. 09/964,734

Atty. Docket: Q66051

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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WASHINGTON OFFICE



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PATENT TRADEMARK OFFICE

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Amendment Under 37 C.F.R. § 1.111
US Appln. 09/964,734

Atty. Docket: Q66051

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 14 and 15 have been added as new claims.